FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST- 7285
HANNEGAN PROPERTIES LLC

GENERAL INFORMATION	
Applicant	Andy J. Vitaljic, President
Facility Name and Address	Hannegan Properties LLC 6069 Hannegan Road Bellingham, WA 98226
Type of Facility	Seafood Processing SIC 2091, 2092
Type of Treatment	Ground water via land application
Legal Description of Application Area	NE ¼ of the NE ½ of Section 20, Township 39N, Range 3E, W.M. Latitude: 48° 51' 40" N Longitude: 122° 26' 45" W
Contact at Facility	Garrett Reynolds, General Manager Telephone: (360) 398-1117, ext. 52
Responsible Official	Andy J. Vitaljic, President 6069 Hannegan Road Telephone: (360) 398-1117 FAX: (360) 398-8801

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INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST-7285. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to waters of the state of Washington. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the waste water, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.162) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. Regulations adopted by the state include procedures for issuing permits (chapter 173-216 WAC), and water quality criteria for ground waters (chapter 173-200 WAC). They also establish requirements which are to be included in the permit.

This fact sheet and draft permit are available for review by interested persons as described in Appendix A—Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. Changes to the permit will be addressed in Appendix C—Response to Comments.

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

HISTORY

Hannegan Properties owns about 40 acres at the intersection of Hemmi Road and Hannegan Road east of Bellingham, Washington. Previously, this facility was operated as a meat rendering plant. Since then, salmon and herring roe are processed, frozen, stored, and sold to retail markets.

Operations at this facility have been covered under various names, including Q Sea LLC (ST-7415), Ocean Beauty Seafoods, Inc. (ST 7285), and Ocean Star Seafoods, Inc. The name was changed to American Canadian Fisheries, and then Hannegan Properties. Four companies currently operate at this location: American Canadian, Q Sea Specialty Services, Sonny Foods, and Pelican Packers. All companies are now covered under the Hannegan Properties' wastewater discharge permit, even though not all have a wastewater discharge.

The previous permit contained a Schedule of Compliance (S4) that required Hannegan Properties to construct, and have fully operational, an approved wastewater treatment system. A Hydrogeologic Site Assessment Report was required on the land application site. Groundwater monitoring wells were required to be installed by July 1, 1996.

An advanced wastewater treatment system was designed and installed between September 1995 and March 1996. The treatment system includes a side-hill screen for solids reduction, and oil/water separator for reduction of oil and grease, a sequential batch reactor (SBR) to reduce the organic content of the wastewater, and a 1.4-million-gallon capacity-aerated, lined lagoon for storage and further biological reduction.

INDUSTRIAL PROCESSES

Operations at this facility are covered under SIC Codes 2091 and 2092. The primary product is lox. They accept fresh salmon on ice, then clean, process, and package them. Clean water is pumped from two wells located west of the plant for use in the processing operations. Water is stored in an 11,000-gallon above-ground storage tank.

Seafood processing is very seasonal. The busiest times for this facility are March and April (spring) and in September (fall) because of higher demand for lox. Other than when they are processing lox for Lent and Passover, wastewater volumes to the SBR and the lagoon are consistent. The fresh fish and herring processing operations formerly conducted at this site have been moved to the Q Sea facility located at the Squalicum Fill on Bellingham Bay, and are permitted under a separate state wastewater discharge permit.

Processes that generate wastewater are fish thawing and cleanup activities. Bins are filled with water for thawing and dumped after the fish are thawed. The thaw water is low in solids and BOD.

The wastewater treatment system includes a side-hill screen for solids reduction, an oil/water separator for reduction of oil and grease, a sequential batch reactor (SBR) to reduce the organic content of the wastewater, and a 1.4-million-gallon capacity-aerated, lined lagoon for storage and further biological reduction. The lagoon water is land applied for further treatment.

This is a permit renewal.

TREATMENT PROCESSES

The facility undertook a two-phased approach to improve the wastewater quality and reduce the amount of wastewater prior to land application. Phase I included separation of the storm and wastewater systems, and installation of a side-hill screen for solids removal. These improvements were completed and operational by July 15, 1995.

Phase II included a geologic and hydrogeologic investigation, and storage lagoon installation. The lagoon construction was completed in November 1995. The 200' x 175' x 8' (operational depth) lagoon is lined with 30 mL PVC liner and has a storage capacity of 1.5 million gallons. An aerator was added after construction to minimize odor generation.

The wastewater Ocean Star Phase I and Phase II, Engineering Report, (August 14 and August 31, 1995, amended October 4, 1995) discussed wastewater flows and system loadings. The system was designed to treat 25,000 gallons per day at a BOD of 600 mg/L. The system was designed to produce treated wastewater effluent with less than 200 mg/L BOD, less than 200 mg/L TSS and less than 35 mg/L TKN.

Hannegan Properties' operation is categorized as a small, slow rate land application system by EPA document 625/1-81-013, *Process Design Manual for Land Treatment of Municipal Wastewater*. Hannegan Properties own almost 40 acres of which 10 acres are currently used for spray irrigation of pretreated wastewater. BOD and TSS are removed by filtration and bacterial action as the treated wastewater percolates through the soil. Site soils are estimated to remove over 95 percent of BOD and TSS in the treated wastewater. Because of the high level of treatment in both the on-site treatment system and site soils, BOD and TSS are not constituents of concern if the system is correctly operated and maintained.

Wastewater treatment for nitrogen and BOD is expected to be accomplished in the SBR, aerated lagoon and via soil and crop treatment.

DISTRIBUTION SYSTEM (SPRAYFIELD)

Pretreated wastewater is land applied via an above-ground fixed-head irrigation system, to ten acres of land located adjacent to Hannegan Road. The sprinkler system is composed of 172 sprinkler heads rated at 3.2 gpm each. The land application site is irrigated in sections on a rotating basis using an automatic timer. Wastewater application is not allowed during significant rainfall, and during December through February. The application rate is based on the groundwater levels as determined from groundwater well monitoring.

A buffer zone was set aside adjacent to the surrounding ditches. The roadside ditches ultimately flow to Fish Trap Creek.

Soil characteristics of the ten-acre application site, as described in the Hydrogeologic Site Assessment Report, are 30 percent SCS soil type 62, Hale silt loam, and 70 percent SCs soil type 184, Whitehorn silt loam. Facility management consulted with the Natural Resources Conservation Service (NRCS) to obtain information on the optimal crop to grow. Redtop (Agrostis alba) was initially planted because it was salt tolerant and had a high nutrient requirement. Problems occurred in the first year of operation because the crop grew so tall; it fell over and smothered the soil, creating an anaerobic condition. The crop is now cut periodically during the growing season so this won't occur again.

GROUND WATER

A Geologic and Hydrologic Analysis Report was prepared for the site (Merit Engineering, August 1995). The report indicates that ground water in the area is moving north to northwest. Based on the Merit report's characterization of the water table aquifer, three monitoring wells were installed at the site to track groundwater contamination, movement, and levels. The on-site well locations include one well upgradient of the land application area (designated as MW-3), and two wells downgradient of the land application area. The well designated as MW-2 is located 110 feet downgradient from the southern land application site. MW-1 is located at the northeast property boundary, near the intersection of Hemmi Road and Hannegan Road. Since there has not been any wastewater application to the eight acres in that quadrant, sampling at MW-1 has been suspended.

The ground water is characterized as a perched zone under the land application field. A thorough analysis by an Ecology hydrogeologist concluded that the ditch adjacent to MW-2 intercepts ground water leaving the field prior to reaching the well. MW-3 is located beyond the influence of the sprayfield and is useful as an upgradient well but is of no use for monitoring the activities on the sprayfield. Installation of additional monitoring wells was recommended. After the new wells are installed, MW-2 and MW-3 should be monitored only for groundwater level.

Past practices of herring slacking have subjected the application field soils to excessive TDS, specifically chlorides. Given the shallow depth to ground water and the permeable nature of the soil column, it is likely that the chlorides have moved through the soils. Soil sampling is required in this permit to verify the soils have not been compromised by past practices.

PERMIT STATUS

The previous permit for this facility was issued on January 31, 1996.

An application for permit renewal was submitted to the Department on June 29, 2000, and accepted by the Department on February 8, 2001. The permit was administratively extended based on the completed application. A new application for permit approval was submitted on January 23, 2006.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

Compliance inspections were conducted on July 7, 2005, and January 17, 2006. They had all the required bench sheets and paperwork for the DMR submittals.

During the history of the previous permit, the Permittee has remained in compliance based on Discharge Monitoring Reports (DMRs) and other reports submitted to the Department and inspections conducted by the Department but have not submitted the Annual Sprayfield Management Report since 1998 as required in Section S7. The problem with late DMR submittals has been corrected.

WASTEWATER CHARACTERIZATION

The concentration of pollutants in the discharge was reported in the Discharge Monitoring Reports. The wastewater discharge, taken from the lagoon, prior to infiltration or land application, and the groundwater well data is listed below:

Table 1: Wastewater Characterization

Parameter	Concentration		
	MW-2	**MW-3 (upgradient)**	**Lagoon (004)**
Chloride, mg/L	11.56	6.48	
Conductivity, µmhos	261	297.5	8329.3
NO2-NO3 (as N)	.43	1.72	.15
pH, std units	5.9	6.44	7.6
BOD5, mg/L			215.5
Fecal Coliform, #/100 mL			740
TKN-N, mg/L			73.1
TSS, mg/L			271.5

This data is an average summary taken of the data submitted between January 1, 2004, through February 2006.

SEPA COMPLIANCE

This is an existing facility and SEPA is not required at this time. SEPA was complied with when the wastewater storage lagoon was constructed.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be either technology- or water quality-based. Waste water must be treated using all known, available and reasonable treatment (AKART) and not pollute the waters of the state. The minimum requirements to demonstrate compliance with the AKART standard were determined in the engineering report (GeoEngineers, Phase 1 and Phase II Engineering Reports, August 14 and August 31, 1995, amended October 4, 1995), in conformance with *Guidelines for the Preparation of Engineering Reports for Industrial Wastewater Land Application Systems*, May 1993.

The permit also includes limitations on the quantity and quality of the wastewater applied to the sprayfield that have been determined to protect the quality of the ground water. The approved engineering report includes specific design criteria for this facility. Water quality-based limitations are based upon compliance with the Ground Water Quality Standards (chapter 173-200 WAC).

The more stringent of the water quality-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). The following permit limitations are necessary to satisfy the requirement for AKART:

GROUND WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's ground waters including the protection of human health, WAC 173-200-100 states that waste discharge permits shall be conditioned in such a manner as to authorize only activities that will not cause violations of the ground water quality standards. Drinking water is the beneficial use generally requiring the highest quality of ground water. Providing protection to the level of drinking water standards will protect a great variety of existing and future beneficial uses.

Applicable ground water criteria as defined in chapter 173-200 WAC and in RCW 90.48.520 for this discharge include the following:

Table 2: Ground Water Quality Criteria

Parameter	Limit
Total Dissolved Solids	500 mg/L
Chloride	250 mg/L
Nitrate	10 mg/L
pH	6.5 to 8.5 standard units
Toxics	No toxics in toxic amounts

The Department has reviewed existing records and has determined that background groundwater quality meets the criteria given in chapter 173-200 WAC. The discharges authorized by this proposed permit are not expected to interfere with beneficial uses.

Pollutant concentrations in the proposed discharge meet or exceed groundwater quality criteria with technology-based controls which the Department has determined to be AKART. A limit based on groundwater criteria is established and applied at the end of treatment.

COMPARISON OF LIMITATIONS WITH THE EXISTING PERMIT

Table 3: Comparison of Previous and New Limits

Parameter – Lagoon Wastewater	Existing Limits	Proposed Limits
Flow		25,000 gpd
pH	6.0 – 9.0 std units	6.0 – 9.0 std units
Parameter - Groundwater		
Nitrate	None	10 mg/L
Total Dissolved Solids, TDS	None	500 mg/L
Chloride	None	250 mg/L

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, that groundwater criteria are not violated, and that effluent limitations are being achieved (WAC 173-216-110).

WASTEWATER MONITORING

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

Soil monitoring is being required to further characterize the past and present impacts on the sprayfield soils. Pollutants in the wastewater discharged to the land application site could have a significant impact on the quality of the ground water.

CROP MONITORING

The Sprayfield Management Report required in Special Condition S11 includes the requirement to summarize the crops grown, total acreage, and quantity harvested. Crop consumptive use of water- and design-limiting parameters such as nutrients, salts, and TDS shall be included. The purpose of crop monitoring is to assess the potential impacts of the wastewater discharge on ground water and the benefits of nutrient and hydraulic removal from the crops.

SOIL MONITORING

Soil monitoring is required twice during the permit cycle to assess past and present impacts to the soils from wastewater application. The soil samples shall be taken during the spring and fall of 2007. Results shall be submitted with the 2007 annual Sprayfield Management Plan, due by January 31, 2008.

GROUNDWATER MONITORING

The monitoring of ground water at the site is required in accordance with the Ground Water Quality Standards, chapter 173-200 WAC. The Department has determined that this discharge has a potential to pollute the ground water. Therefore the Permittee is required to evaluate the impacts on groundwater quality. Monitoring of the ground water at the site boundaries and within the site is an integral component of such an evaluation.

OTHER PERMIT CONDITIONS

REPORTING AND RECORD KEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and record keeping requirements to prevent and control waste discharges (WAC 173-216-110).

COMPLIANCE SCHEDULE

The conditions of S4 require the Permittee to have the size land application site confirmed with a professional survey. Five new monitoring wells are required to further assess groundwater flow and potential impacts from the land application activities. A well head survey is required of all wells by December 2006.

FACILITY LOADING

The design criteria for this treatment facility are taken from the engineering report prepared by Leonard, Boudinot, Skodje, Inc., *Ocean Star Seafoods Phase II Engineering Report, Wastewater Treatment System and Storage Lagoon* (August 1995) and are as follows:

Daily average flow	25,000 gpd
Peak daily flow (4-hour duration)	30,000 gpd
Instantaneous peak flow	62 gpm
BOD influent loading	450 mg/L – 94 lb
TSS influent loading	260 mg/L – 54 lb

The permit requires the Permittee to maintain adequate capacity to treat the flows and waste loading to the treatment plant (WAC 173-216-110[4]). For significant changes in loadings to the treatment works, the permit requires a new application and an engineering report (WAC 173-216-110[5]).

IRRIGATION AND CROP MANAGEMENT PLANS

The Irrigation and Crop Management Plan (part of the Sprayfield Management Plan – S11) is required to support the engineering report(s) and Operations and Maintenance Manual. This plan shall include a consideration of wastewater application at agronomic rates and should describe and evaluate various irrigation controls.

OPERATIONS AND MAINTENANCE

The proposed permit contains Condition S.5 as authorized under chapter 173-240-150 WAC and chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under the authority of RCW 90.48.080 that the Permittee update the Solid Waste Plan designed to prevent solid waste from causing pollution of the waters of the state as needed. All revisions or modifications to the Solid Waste Plan need to be submitted to the Department within thirty (30) days of adoption.

NON-ROUTINE AND UNANTICIPATED DISCHARGES

Occasionally, this facility may generate waste water which is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These are typically clean waste waters but may be contaminated with pollutants such as low or high pH or high chlorides. The permit contains an authorization for non-routine and unanticipated discharges. The permit requires a characterization of these waste waters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, Ecology may authorize a discharge via the DAFT system then discharge to the wastewater holding lagoon, or require the water to be hauled to the city of Bellingham wastewater treatment facility.

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to update this plan and submit it to the Department by November 1, 2006.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to ground water permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the payment of permit fees. Condition G10 describes the penalties for violating permit conditions.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, and to protect human health and the beneficial uses of waters of the state of Washington. The Department proposes that the permit be issued for a term of five (5) years.

REFERENCES FOR TEXT AND APPENDICES

Faulkner, S.P., Patrick Jr., W.H., Gambrell, R.P., May-June, 1989. Field Techniques for Measuring Wetland Soil Parameters, Soil Science Society of America Journal, Vol. 53, No. 3.

Washington State Department of Ecology, 1993. Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems, Ecology Publication No. 93-36. 20 pp.

Washington State Department of Ecology.

Laws and Regulations (http://www.ecy.wa.gov/laws-rules/index.html)

Permit and Wastewater Related Information (http://www.ecy.wa.gov/programs/wq/wastewater/index.html)

Washington State Department of Ecology, 1996. Implementation Guidance for the Ground Water Quality Standards, Ecology Publication No. 96-02.

Washington State University, November 1981. Laboratory Procedures - Soil Testing Laboratory. 38 pp.

APPENDICES

APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page one of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

The Department published a Public Notice of Draft (PNOD) on June 30, 2006, in *The Bellingham Herald* to inform the public that a draft permit and fact sheet were available for review. Interested persons were invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents were available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments were mailed to:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 – 160th Avenue SE
Bellevue, WA 98008-5452

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30)-day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (425) 649-7201, or by writing to the address listed above.

This permit was written by Lori LeVander.

APPENDIX B—GLOSSARY

Ambient Water Quality—The existing environmental condition of the water in a receiving water body.

Average Monthly Discharge Limitation—The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD_5—Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD_5 is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the Federal Clean Water Act.

Bypass—The intentional diversion of waste streams from any portion of the collection or treatment facility.

Compliance Inspection - Without Sampling—A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling—A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity—Clearing, grading, excavation, and any other activity which disturbs the surface of the land. Such activities may include road building; construction of residential houses, office buildings, or industrial buildings; and demolition activity.

Continuous Monitoring—Uninterrupted, unless otherwise noted in the permit.

Distribution Uniformity—The uniformity of infiltration (or application in the case of sprinkle or trickle irrigation) throughout the field expressed as a percent relating to the average depth infiltrated in the lowest one-quarter of the area to the average depth of water infiltrated.

Engineering Report—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Grab Sample—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial Wastewater—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Maximum Daily Discharge Limitation—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)—The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

pH—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Quantitation Level (QL)—A calculated value five times the MDL (method detection level).

Soil Scientist—An individual who is registered as a Certified or Registered Professional Soil Scientist or as a Certified Professional Soil Specialist by the American Registry of Certified Professionals in Agronomy, Crops, and Soils or by the National Society of Consulting Scientists or who has the credentials for membership. Minimum requirements for eligibility are: possession of a baccalaureate, masters, or doctorate degree from a U.S. or Canadian institution with a minimum of 30 semester hours or 45 quarter hours professional core courses in agronomy, crops or soils, and have five, three, or one year(s), respectively, of professional experience working in the area of agronomy, crops, or soils.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Coliform Bacteria—A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids—That portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids (TSS)—Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit—A limit on the concentration of an effluent parameter that is intended to prevent pollution of the receiving water.

APPENDIX C—RESPONSE TO COMMENTS

There were no comments received during the 30-day public comment period.